

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 October 2005 (06.10.2005)

PCT

(10) International Publication Number
WO 2005/093140 A1

(51) International Patent Classification⁷: **D01F 6/00**,
B32B 5/02, 27/12, 27/04

(21) International Application Number:
PCT/US2005/008989

(22) International Filing Date: 18 March 2005 (18.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/555,111 22 March 2004 (22.03.2004) US

(71) Applicant (*for US only*): INVISTA NORTH AMERICA,
S.A.R.L. [US/US]; 4501 Charlotte Park Drive, Charlotte,
NC 28217-1979 (US).

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): DAVIS, John, Edward
[US/US]; 305 N. Deerfield Circle, Salisbury, NC 28147
(US).

(74) Agents: CLEMENTS, Gregory, N. et al.; Dougherty,
Clements, Hofer & Bernard, Suite 300, 1901 Roxborough
Road, Charlotte, NC 28211 (US).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— *of inventorship (Rule 4.17(iv)) for US only*

Published:

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: LOW WICK CONTINUOUS FILAMENT POLYESTER YARN

(57) Abstract: The present invention teaches a filament yarn that has low wicking, i.e., less than or equal to about 6 mm; has a contact angle of greater than or equal to about 65° but less than about 90° according to the straw method; and a static voltage of +/- 400 volts (between -400 to +400 volts). Such yarns are traditionally employed in weaving signs, banners, awning, tents and other products where moisture resistant yarn is important. The yarns can be made into fabrics that possess the same features as the yarn, namely low wicking, and water and oil repellency.

WO 2005/093140 A1